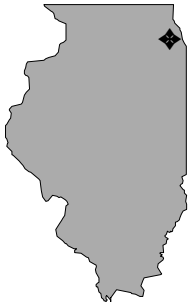
Size: 23,544 acres
Mission: Manufacture, load, assemble, and pack munitions and explosives
HRS Score: 35.23 (Loading, Assembling, and Packing Area); placed on NPL in March 1989
32.08 (Manufacturing Area); placed on NPL in July 1987
IAG Status: IAG signed in June 1989
Contaminants: Explosives, heavy metals, VOCs, and PCBs
Media Affected: Groundwater, sediment, and soil
Funding to Date: $25.2 million
Estimated Cost to Completion (Completion Year): $91.5 million (FY2033)
Final Remedy in Place or Response Complete Date for All Sites: FY2003



Wilmington, Illinois

Restoration Background

The Army constructed Joliet Army Ammunition Plant (JOAAP) in the early 1940s. It was one of the largest munitions and explosives manufacturers in the Midwest. Installation operations included manufacturing of explosives and loading, assembling, and packing (LAP) of munitions for shipment. The 14,385-acre LAP Area and the 9,159-acre Manufacturing Area have been placed on the National Priorities List (NPL).

Environmental studies conducted between FY78 and FY88 identified 53 sites. Prominent site types in the two areas include ash piles, landfills, open burning and open detonation areas, and surface impoundments. The installation consolidated all sites into two operable units, one that addresses groundwater contamination and another for contamination of soil and sediment.

During a FY85 Interim Remedial Action (IRA), the Army removed more than 7 million gallons of explosives-contaminated water from the Red Water Lagoon. After disposing of the water off site, the Army dredged the lagoon, removed the sludge and liner, and covered the entire area with a clay cap. IRA activities in FY93 included capping two ash piles. Phase II Remedial Investigations (RIs) were completed for the Manufacturing Area (FY94) and for the LAP Area (FY95) and approved by the regulatory agencies.

In FY94, the Joliet Arsenal Citizen Planning Commission developed and approved a future land use plan for the installation. In FY95, the Army completed the initial phase of the bioslurry reactor demonstration. Also in FY95, the Army partnered with a commercial company, Tufts University, and Argonne National Laboratory to demonstrate new technologies at the site. In FY95, the installation formed a Restoration Advisory Board (RAB), which represents the area within 25 miles of the installation.

In FY96, the Army completed environmental screening of 15,000 acres to be transferred to the Forest Service, U.S. Department of Agriculture. A 982-acre parcel was transferred to the Department of Veterans Affairs. The Army completed its bioslurry reactor demonstration. The regulatory agencies approved the land application of the treated material. The installation removed more than 1,000 exterior-mounted, oil-filled electrical switches that contained polychlorinated biphenyls (PCBs) and 3 oil pits from the explosives burning ground. Some of the oils collected in the pits contained PCBs that had caused PCB contamination at the site. The installation also removed petroleum- and PCB-contaminated soil from Site L6 and cleared the ground for transfer to future owners.

In FY97, JOAAP provided a host site for a U.S. Army Corps of Engineers Waterways Experiment Station (USAWES) field trial of explosives and metal probes for the Site Characterization and Analysis Penetrometer System (SCAPS) unit. The Army completed Feasibility Studies at all active study sites at the installation. The RAB participated in work prioritization and remedy selection for the Removal Action at Site L6; hosted a media tour; and received training in risk assessment, risk management, and risk communication. The installation partnered with EPA and USAWES on a groundwater natural attenuation and phytoremediation study and included state and federal remedial project managers in review of internal draft reports. The installation also transferred over 15,000 acres of land to the Forest Service.

FY98 Restoration Progress

The installation released an installationwide Proposed Plan and conducted a public presentation and comment period. A Record of Decision (ROD) was initiated but was delayed for incorporation of some late comments. The installation began the Remedial Design for soil and groundwater remediation and conducted a biotechnology demonstration for selection of a bioremediation process. A natural attenuation pilot study also was completed and showed that natural attenuation was a viable alternative. Land transfers to the state and Will County were delayed because of issues with the ROD. The RAB requested and received special training on the Proposed Plan and ROD and formed a committee to provide specific comments on both documents.

Plan of Action

- Complete and obtain approval for the ROD in FY99
- Select a bioremediation technology in FY99
- Begin Remedial Actions for Explosives and PCB Soil Remedial Units in FY99
- Complete transfer of land to the State of Illinois for industrial development and to Will County for use as a landfill in FY99

FY99 Funding by Phase and Relative Risk